

=> d his ful

(FILE 'HOME' ENTERED AT 14:15:36 ON 22 JUL 2005)

FILE 'REGISTRY' ENTERED AT 14:15:41 ON 22 JUL 2005

L1 STR
L2 0 SEA SSS SAM L1
L3 SCR 2043
L4 0 SEA SSS SAM L3 AND L1
L5 0 SEA SSS FUL L3 AND L1
D QUE
L6 1 SEA ABB=ON PLU=ON 544706-97-0
D SCA
L7 STR
L8 0 SEA SSS SAM L7
L9 0 SEA SUB=L6 SSS SAM L7
L10 STR L7
L11 0 SEA SUB=L6 SSS SAM L10
L12 1 SEA SSS SAM L3 AND L10
D SCA
L13 105 SEA SSS FUL L3 AND L10
L14 0 SEA ABB=ON PLU=ON L6 AND L13
L15 STR L1
L16 0 SEA SSS SAM L3 AND L15
L17 7 SEA SSS FUL L3 AND L15
L18 1 SEA ABB=ON PLU=ON L17 AND L6
D SCA L17
L19 STR
L20 3 SEA SUB=L17 SSS FUL L19
D SCA

FILE 'HCAPLUS' ENTERED AT 15:05:00 ON 22 JUL 2005

L21 4 SEA ABB=ON PLU=ON L20

FILE 'STNGUIDE' ENTERED AT 15:05:29 ON 22 JUL 2005

FILE 'REGISTRY' ENTERED AT 15:08:06 ON 22 JUL 2005

L22 STR
L23 0 SEA SSS SAM L22
L24 0 SEA SSS SAM L3 AND L22
L25 3 SEA SSS FUL L3 AND L22
D SCA

FILE 'HCAPLUS' ENTERED AT 15:09:40 ON 22 JUL 2005

L26 5 SEA ABB=ON PLU=ON L25

FILE 'REGISTRY' ENTERED AT 15:11:02 ON 22 JUL 2005

L27 STR L22
L28 13 SEA SSS FUL L3 AND L27

FILE 'HCAPLUS' ENTERED AT 15:11:33 ON 22 JUL 2005

L29 21 SEA ABB=ON PLU=ON L28

FILE 'REGISTRY' ENTERED AT 15:11:48 ON 22 JUL 2005

L30 STR
L31 0 SEA SSS FUL L3 AND L30
D QUE
L32 STR L30

L33 0 SEA SSS SAM L32
L34 0 SEA SSS SAM L3 AND L32
L35 49 SEA SSS FUL L3 AND L32
L36 STR L32
L37 3 SEA SSS SAM L3 AND L36
L38 279 SEA SSS FUL L3 AND L36
L39 160 SEA ABB=ON PLU=ON L38 AND NC<4
L40 1 SEA ABB=ON PLU=ON OXIRANE/CN
E POLYETHYLENE GLYCOL/CN
L41 1 SEA ABB=ON PLU=ON "POLYETHYLENE GLYCOL"/CN
L*** DEL 3337 S POLYPROPYLENE GLYCOL
L42 1 SEA ABB=ON PLU=ON POLYPROPYLENE GLYCOL/CN
L43 3 SEA ABB=ON PLU=ON (L40 OR L41 OR L42)
SEL RN
L44 44461 SEA ABB=ON PLU=ON (25322-68-3/CRN OR 25322-69-4/CRN OR
75-21-8/CRN)
L45 58 SEA ABB=ON PLU=ON L44 AND L38
L46 24 SEA ABB=ON PLU=ON L39 AND L44
L47 274 SEA ABB=ON PLU=ON L38 NOT IDS/CI
L48 67 SEA ABB=ON PLU=ON L47 AND NC<3
L49 1 SEA ABB=ON PLU=ON L48 AND L44
D SCA

FILE 'HCAPLUS' ENTERED AT 16:03:39 ON 22 JUL 2005

L50 1 SEA ABB=ON PLU=ON L49
D SCA TI

FILE 'REGISTRY' ENTERED AT 16:03:58 ON 22 JUL 2005

L51 7 SEA ABB=ON PLU=ON L47 AND NC=1
D SCA
L52 2 SEA ABB=ON PLU=ON L51 AND "POLY(OXY-"/CN
D SCA
L53 3 SEA ABB=ON PLU=ON L49 OR L52

FILE 'HCAPLUS' ENTERED AT 16:05:42 ON 22 JUL 2005

FILE 'REGISTRY' ENTERED AT 16:08:15 ON 22 JUL 2005

L54 STR
L55 1 SEA SSS SAM L54
L56 8 SEA SSS SAM L3 AND L54
L57 703 SEA SSS FUL L3 AND L54
L58 13 SEA ABB=ON PLU=ON L57 AND L44
L59 2 SEA ABB=ON PLU=ON L58 AND NC=2
D SCA
L60 668 SEA ABB=ON PLU=ON L57 NOT IDS/CI
L61 310 SEA ABB=ON PLU=ON L60 AND NC=1

FILE 'HCAPLUS' ENTERED AT 16:15:17 ON 22 JUL 2005

L62 2 SEA ABB=ON PLU=ON (L59 OR L61) (L) PROTEIN
D SCA TI
D L19

FILE 'REGISTRY' ENTERED AT 16:20:13 ON 22 JUL 2005

FILE 'HCAPLUS' ENTERED AT 16:20:17 ON 22 JUL 2005

D L27
D QUE L31

FILE 'REGISTRY' ENTERED AT 16:22:29 ON 22 JUL 2005

L63 STR L30
L64 0 SEA SSS FUL L3 AND L63
D QUE L31
D SCA L53
L65 STR L1
L66 11 SEA SSS FUL L3 AND L65
L67 0 SEA ABB=ON PLU=ON L66 AND L44
L68 20 SEA ABB=ON PLU=ON L17 OR L25 OR L28 OR L31 OR L53

FILE 'HCAPLUS' ENTERED AT 16:28:02 ON 22 JUL 2005

L69 25 SEA ABB=ON PLU=ON L68
L70 2 SEA ABB=ON PLU=ON (L59 OR L62) (L) PROTEIN
L71 2 SEA ABB=ON PLU=ON L69 OR L70

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 21 JUL 2005 HIGHEST RN 856430-35-8

DICTIONARY FILE UPDATES: 21 JUL 2005 HIGHEST RN 856430-35-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

FILE HCAPLUS

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FILE COVERS 1907 - 22 Jul 2005 VOL 143 ISS 5
 FILE LAST UPDATED: 21 Jul 2005 (20050721/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
 substance identification.

FILE STNGUIDE
 FILE CONTAINS CURRENT INFORMATION.
 LAST RELOADED: Jul 15, 2005 (20050715/UP).

=> d que

L3 SCR 2043
 L15 STR

$\text{C}\equiv\text{O}$ $\text{NH}\sim\text{C}\equiv\text{O}$ $\text{O}\sim\text{C}\equiv\text{O}$
 @16 17 @18 @19 20 @21 @22 23

$\text{Ak}\sim\text{O}\sim\text{G3}\sim\text{G4}\sim\text{G5}\sim\text{G6}\sim\text{CH}\equiv\text{O}$
 3 4 5 6 7 8 9 10

REP G3=(2-4) CH2
 VAR G4=16/18-5 19-7/21-5 22-7
 VAR G5=O/NH
 REP G6=(2-8) CH2
 NODE ATTRIBUTES:
 CONNECT IS E2 RC AT 3
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
 L17 7 SEA FILE=REGISTRY SSS FUL L3 AND L15
 L22 STR

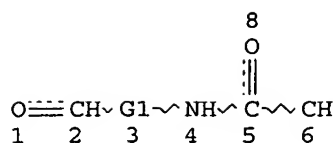
8
 O
 |||
 $\text{O}\equiv\text{CH}\sim\text{G1}\sim\text{NH}\sim\text{C}\sim\text{CH2}\cdot\text{CH2}$
 1 2 3 4 5 6 7

REP G1=(2-8) CH2
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE
 L25 3 SEA FILE=REGISTRY SSS FUL L3 AND L22

L27 STR



REP G1=(2-8) CH2

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

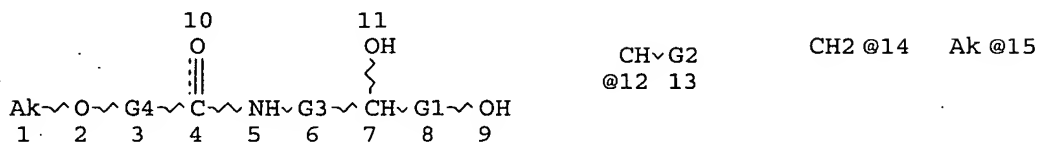
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L28 13 SEA FILE=REGISTRY SSS FUL L3 AND L27

L30 STR



VAR G1=12/14

VAR G2=15/PH

REP G3=(2-8) CH2

REP G4=(2-4) CH2

NODE ATTRIBUTES:

CONNECT IS E2 RC AT 1

CONNECT IS E1 RC AT 15

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

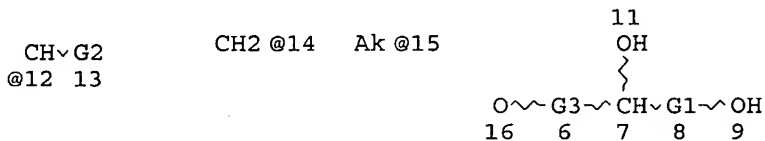
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

L31 0 SEA FILE=REGISTRY SSS FUL L3 AND L30

L36 STR



VAR G1=12/14

VAR G2=15/PH

REP G3=(2-8) CH2

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 15

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L38 279 SEA FILE=REGISTRY SSS FUL L3 AND L36
 L44 44461 SEA FILE=REGISTRY ABB=ON PLU=ON (25322-68-3/CRN OR 25322-69-4
 /CRN OR 75-21-8/CRN)
 L47 274 SEA FILE=REGISTRY ABB=ON PLU=ON L38 NOT IDS/CI
 L48 67 SEA FILE=REGISTRY ABB=ON PLU=ON L47 AND NC<3
 L49 1 SEA FILE=REGISTRY ABB=ON PLU=ON L48 AND L44
 L51 7 SEA FILE=REGISTRY ABB=ON PLU=ON L47 AND NC=1
 L52 2 SEA FILE=REGISTRY ABB=ON PLU=ON L51 AND "POLY(OXY-"/CN
 L53 3 SEA FILE=REGISTRY ABB=ON PLU=ON L49 OR L52
 L54 STR

O~G4~G3~G2~G1~CH2·NH C=O NH~C=O O~C=O
 7 6 1 2 3 4 5 @8 9 @10 @11 12 @13 @14 15

REP G1=(2-8) CH2

VAR G2=O/NH

VAR G3=8/10-6 11-2/13-6 14-2

REP G4=(2-4) CH2

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

L57 703 SEA FILE=REGISTRY SSS FUL L3 AND L54
 L58 13 SEA FILE=REGISTRY ABB=ON PLU=ON L57 AND L44
 L59 2 SEA FILE=REGISTRY ABB=ON PLU=ON L58 AND NC=2
 L60 668 SEA FILE=REGISTRY ABB=ON PLU=ON L57 NOT IDS/CI
 L61 310 SEA FILE=REGISTRY ABB=ON PLU=ON L60 AND NC=1
 L62 2 SEA FILE=HCAPLUS ABB=ON PLU=ON (L59 OR L61) (L) PROTEIN
 L68 20 SEA FILE=REGISTRY ABB=ON PLU=ON L17 OR L25 OR L28 OR L31 OR
 L53
 L69 25 SEA FILE=HCAPLUS ABB=ON PLU=ON L68
 L70 2 SEA FILE=HCAPLUS ABB=ON PLU=ON (L59 OR L62) (L) PROTEIN
 L71 27 SEA FILE=HCAPLUS ABB=ON PLU=ON L69 OR L70

=> d l71 ibib abs hitind hitstr 1-27

L71 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:1060830 HCAPLUS

DOCUMENT NUMBER: 142:38753

TITLE: Water-soluble polymers containing protected vicinial diols

INVENTOR(S): Fox, Martin Edward; Appell, Robert Bruce

PATENT ASSIGNEE(S): UK

SOURCE: U.S. Pat. Appl. Publ., 7 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| US 2004249119 | A1 | 20041209 | US 2003-455524 | 20030605 |
| US 2004249067 | A1 | 20041209 | US 2004-859385 | 20040602 |
| WO 2005000941 | A1 | 20050106 | WO 2004-US17140 | 20040602 |
| WO 2005000941 | C1 | 20050310 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2003-455524 A2 20030605

AB The invention comprises a linear or branched polymer derivative comprising a water soluble and non-peptidic polymer backbone that incorporates an optionally protected vicinal diol, which is either embedded in the polymer backbone or is attached as a pendant group, wherein each linking group (linker) between the polymer backbone and the vicinal diol is a chain comprising at least two saturated carbon atoms. The invention further comprises a method of using the polymer derivative to form an aldehyde and either a second aldehyde or a ketone by way of oxidative cleavage.

IC ICM C08G065-32

INCL 528480000; 525061000; 525326100; 525403000

CC 35-8 (Chemistry of Synthetic High Polymers)

IT 161927-25-9P 804564-43-0P 804564-44-1P 804564-46-3P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(water-soluble polymers containing protected vicinial diols)

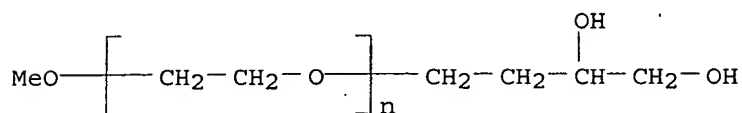
IT 804564-46-3P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(water-soluble polymers containing protected vicinial diols)

RN 804564-46-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -(3,4-dihydroxybutyl)- ω -methoxy-(9CI) (CA INDEX NAME)



L71 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:1060811 HCAPLUS

DOCUMENT NUMBER: 142:38751

TITLE: Linear or branched methoxypolyethylene glycol polymer derivatives for forming aldehydes or ketones and their preparation

INVENTOR(S): Fox, Martin Edward; Appell, Robert Bruce; Cantrill, Alexander Allan

PATENT ASSIGNEE(S): UK
SOURCE: U.S. Pat. Appl. Publ., 9 pp., Cont.-in-part of U.S.
Ser. No. 455,524.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| US 2004249067 | A1 | 20041209 | US 2004-859385 | 20040602 |
| US 2004249119 | A1 | 20041209 | US 2003-455524 | 20030605 |

PRIORITY APPLN. INFO.: US 2003-455524 A2 20030605

AB The polymer derivative comprises a water soluble and non-peptidic polymer backbone incorporating an optionally protected vicinal diol, which is either embedded in the polymer backbone or is attached as a pendant group, wherein each linking group (linker) between the polymer backbone and the vicinal diol is a chain comprising ≥ 2 adjacent saturated carbon atoms. Polymer derivative is used for forming an aldehyde and either a second aldehyde or a ketone by way of oxidative cleavage.

IC ICM C08G083-00

INCL 525056000; 525326100; 525326700; 525326800; 525383000; 525403000

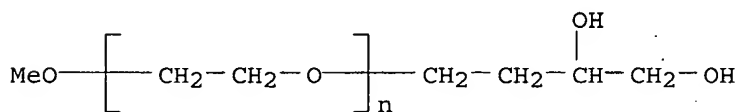
CC 35-8 (Chemistry of Synthetic High Polymers)

IT 804564-43-0P 804564-44-1P 804564-45-2P **804564-46-3P**
804564-47-4P 804564-48-5P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of linear or branched methoxypolyethylene glycol polymer derivs. for forming aldehydes or ketones)

IT **804564-46-3P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of linear or branched methoxypolyethylene glycol polymer derivs. for forming aldehydes or ketones)

RN 804564-46-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -(3,4-dihydroxybutyl)- ω -methoxy-
(9CI) (CA INDEX NAME)



L71 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:609952 HCAPLUS
DOCUMENT NUMBER: 141:157893
TITLE: Novel monofunctional polyethylene glycol aldehydes
useful for pegylation
INVENTOR(S): Rosen, Perry; Nho, Kwang
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S.
Ser. No. 661,268.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| US 2004147687 | A1 | 20040729 | US 2003-715607 | 20031118 |
| KR 2003048293 | A | 20030619 | KR 2001-78244 | 20011211 |
| US 2003153694 | A1 | 20030814 | US 2002-303260 | 20021125 |
| US 2004034188 | A1 | 20040219 | US 2003-431294 | 20030507 |
| US 6916962 | B2 | 20050712 | | |
| US 2004122164 | A1 | 20040624 | US 2003-661268 | 20030912 |

PRIORITY APPLN. INFO.:

| | | |
|-----------------|----|----------|
| KR 2001-78244 | A | 20011211 |
| US 2002-348452P | P | 20020116 |
| US 2002-381503P | P | 20020517 |
| US 2002-407741P | P | 20020903 |
| US 2002-303260 | A2 | 20021125 |
| US 2003-431294 | A2 | 20030507 |
| US 2003-661268 | A2 | 20030912 |

AB The present invention provides novel monofunctional polyethylene glycol aldehydes for the pegylation of therapeutically active proteins. The pegylated protein conjugates that are produced, retain a substantial portion of their therapeutic activity and are less immunogenic than the protein from which the conjugate is derived. New syntheses for preparing such aldehydes are described.

IC ICM C08G065-32

INCL 525389000; 525403000

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 63

IT 79-10-7DP, Acrylic acid, addition products with methoxypolyethylene glycol, ester with hydroxysuccinimide, amide derivative, urethane propionaldehyde 6066-82-6DP, N-Hydroxysuccinimide, ester with methoxypolyethylene glycol acrylic acid addition product, amide derivative, urethane propionaldehyde 9004-74-4DP, Methoxypolyethylene glycol, addition products with acrylic acid, ester with hydroxysuccinimide, amide derivative, urethane propionaldehyde 41365-75-7DP, displacement reaction products with hydroxysuccinimide esterified methoxypolyethylene glycol acrylic acid addition product, deacetalized compound 533881-58-2P 544706-95-8P

544706-97-0P 544706-99-2P 544707-02-0P

544707-05-3P 544708-06-7P

RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(novel monofunctional polyethylene glycol aldehydes for pegylation of therapeutically active proteins)

IT 544706-95-8P 544706-97-0P 544707-02-0P

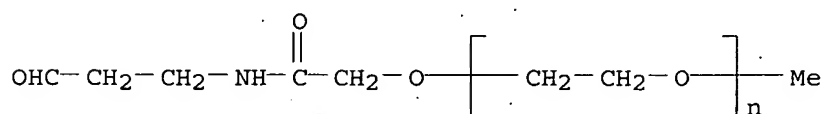
544707-05-3P

RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

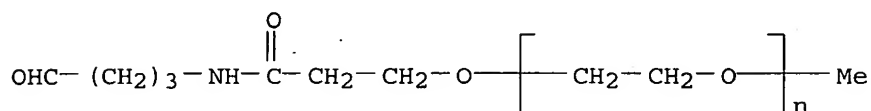
(novel monofunctional polyethylene glycol aldehydes for pegylation of therapeutically active proteins)

RN 544706-95-8 HCAPLUS

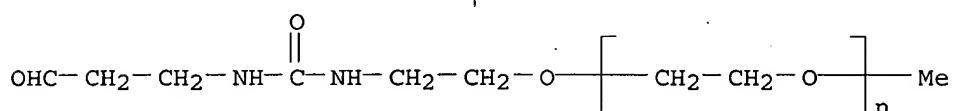
CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-oxo-2-[(3-oxopropyl)amino]ethoxy]- (9CI) (CA INDEX NAME)



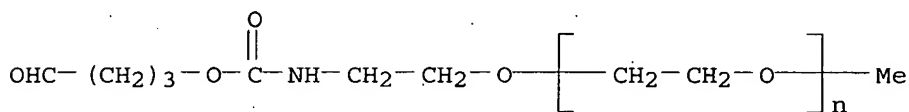
RN 544706-97-0 HCAPLUS
 CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[3-oxo-3-[(4-oxobutyl)amino]propoxy]- (9CI) (CA INDEX NAME)



RN 544707-02-0 HCAPLUS
 CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-[[[(3-oxopropyl)amino]carbonyl]amino]ethoxy]- (9CI) (CA INDEX NAME)



RN 544707-05-3 HCAPLUS
 CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-[[[(4-oxobutoxy)carbonyl]amino]ethoxy]- (9CI) (CA INDEX NAME)



L71 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:513373 HCAPLUS
 DOCUMENT NUMBER: 141:72062
 TITLE: monofunctional polyethylene glycol aldehydes,
 preparation and protein conjugate
 INVENTOR(S): Rosen, Perry; Nho, Kwang H.
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S.
 Pat. Appl. 2004 34,188.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|-------------|
| US 2004122164 | A1 | 20040624 | US 2003-661268 | 20030912 |
| KR 2003048293 | A | 20030619 | KR 2001-78244 | 20011211 |
| US 2003153694 | A1 | 20030814 | US 2002-303260 | 20021125 |
| US 2004034188 | A1 | 20040219 | US 2003-431294 | 20030507 |
| US 6916962 | B2 | 20050712 | | |
| US 2004147687 | A1 | 20040729 | US 2003-715607 | 20031118 |
| PRIORITY APPLN. INFO.: | | | KR 2001-78244 | A 20011211 |
| | | | US 2002-303260 | A2 20021125 |

| | |
|-----------------|-------------|
| US 2003-431294 | A2 20030507 |
| US 2002-348452P | P 20020116 |
| US 2002-381503P | P 20020517 |
| US 2002-407741P | P 20020903 |
| US 2003-661268 | A2 20030912 |

AB The monofunctional polyethylene glycol aldehydes are used for the pegylation of therapeutically active proteins. The pegylated protein conjugates that are produced, retain a substantial portion of their therapeutic activity and are less immunogenic than the protein from which the conjugate is derived.

IC ICM C08G065-00

ICS C08G063-48; C08G063-91

INCL 525054100; 528230000; 525526000

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 63

IT 112344-11-3DP, Acrylic acid-ethylene oxide graft copolymer, reaction products with hydroxysuccinimide, aminodiethoxypropane, and aldehyde formation 533881-58-2P 544706-95-8P 544706-97-0P

544706-99-2P 544707-02-0P 544707-05-3P 544708-06-7P

RL: IMF (Industrial manufacture); PREP (Preparation)

(polyethylene glycol aldehydes for conjugates with proteins)

IT 544706-95-8P 544706-97-0P 544707-02-0P

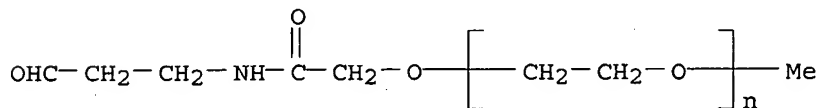
544707-05-3P

RL: IMF (Industrial manufacture); PREP (Preparation)

(polyethylene glycol aldehydes for conjugates with proteins)

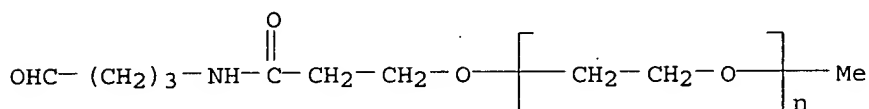
RN 544706-95-8 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-oxo-2-[(3-oxopropyl)amino]ethoxy]- (9CI) (CA INDEX NAME)



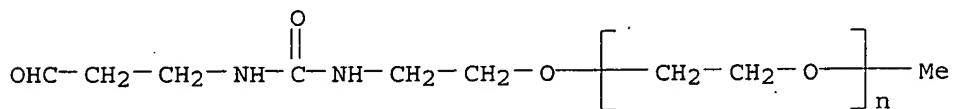
RN 544706-97-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[3-oxo-3-[(4-oxobutyl)amino]propoxy]- (9CI) (CA INDEX NAME)



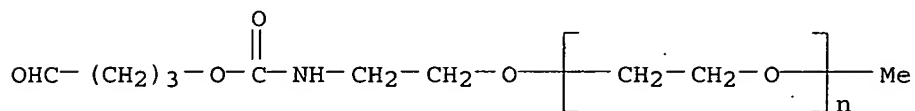
RN 544707-02-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-[[[(3-oxopropyl)amino]carbonyl]amino]ethoxy]- (9CI) (CA INDEX NAME)



RN 544707-05-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-[[4-oxobutoxy)carbonyl]amino]ethoxy]- (9CI) (CA INDEX NAME)



L71 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:493467 HCAPLUS

DOCUMENT NUMBER: 141:59665

TITLE: Bifunctional polyethylene glycol derivatives

INVENTOR(S): Rosen, Perry; Nho, Kwang

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 52 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| US 2004115165 | A1 | 20040617 | US 2003-721013 | 20031121 |
| PRIORITY APPLN. INFO.: | | | US 2002-428809P | P 20021125 |

AB The present invention provides novel heterobifunctional and monobifunctional polyethylene glycol derivs. for the pegylation of therapeutically active proteins. The heterobifunctional PEGs which bear two different functional groups as well as the monobifunctional PEGs which contain two similar functional groups, may be used for crosslinking purposes. The crosslinking may be intramol. between two areas within the same mol. or intermol. between two sep. mols. The pegylated protein conjugates that are produced, retain a substantial portion of their therapeutic activity and are less immunogenic than the protein from which the conjugate is derived. New syntheses for preparing such bifunctional derivs. are described.

IC ICM A61K031-765

ICS C08G059-14

INCL 424078380; 525523000

CC 63-5 (Pharmaceuticals)

IT 650634-84-7P 705933-20-6P 705933-21-7P 705933-22-8P

705933-23-9P 705933-24-0P 705933-25-1P 705933-26-2P

705933-27-3P 705933-28-4P

RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent);
USES (Uses)

(bifunctional polyethylene glycol derivs.)

IT 650634-84-7P 705933-20-6P 705933-23-9P

705933-26-2P 705933-27-3P

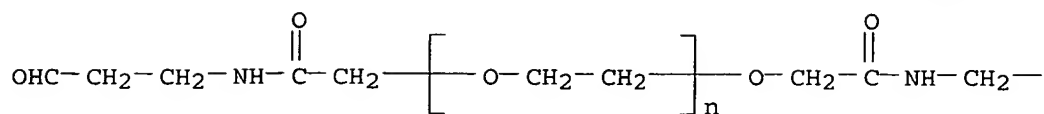
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent);
USES (Uses)

(bifunctional polyethylene glycol derivs.)

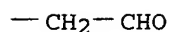
RN 650634-84-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[2-oxo-2-[(3-oxopropyl)amino]ethyl]-
 ω -[2-oxo-2-[(3-oxopropyl)amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



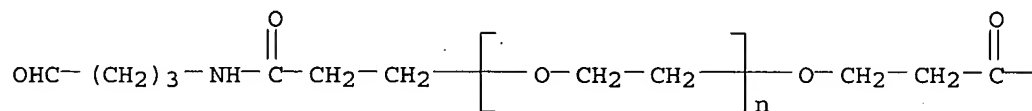
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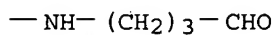
RN 705933-20-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-oxo-3-[(4-oxobutyl)amino]propyl]-
 ω -[3-oxo-3-[(4-oxobutyl)amino]propoxy] - (9CI) (CA INDEX NAME)

PAGE 1-A



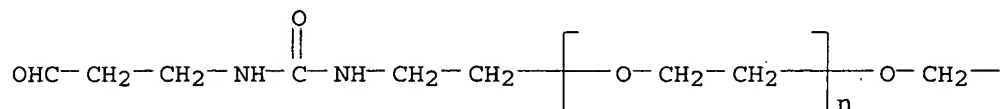
PAGE 1-B



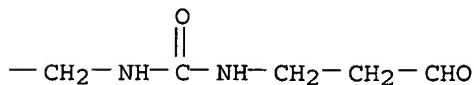
RN 705933-23-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[2-[[[(3-oxopropyl)amino]carbonyl]amino]ethyl]- ω -[2-[[[(3-oxopropyl)amino]carbonyl]amino]ethoxy] - (9CI) (CA INDEX NAME)

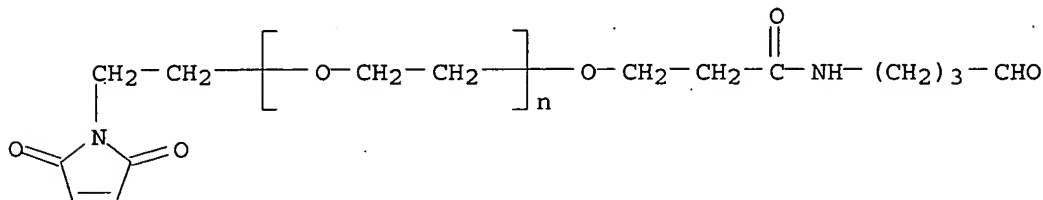
PAGE 1-A



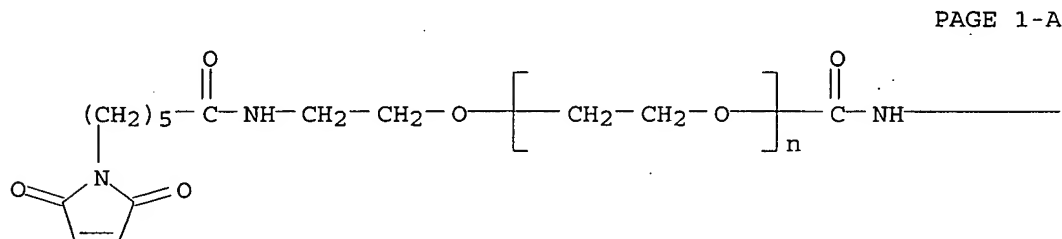
PAGE 1-B



RN 705933-26-2 HCAPLUS
 CN Poly(oxy-1,2-ethanediyl), α -[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]- ω -[3-oxo-3-[(4-oxobutyl)amino]propoxy]- (9CI) (CA INDEX NAME)



RN 705933-27-3 HCAPLUS
 CN Poly(oxy-1,2-ethanediyl), α -[[[(4-oxobutyl)amino]carbonyl]- ω -[2-[[6-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxohexyl]amino]ethoxy]- (9CI) (CA INDEX NAME)



PAGE 1-A

PAGE 1-B

— (CH₂)₃—CHO

L71 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:142840 HCAPLUS
 DOCUMENT NUMBER: 140:181998
 TITLE: Novel monofunctional polyethylene glycol aldehydes
 INVENTOR(S): Rosen, Perry; Nho, Kwang
 PATENT ASSIGNEE(S): Sun Bio, Inc., USA
 SOURCE: U.S. Pat. Appl. Publ., 16 pp., Cont.-in-part of U.S. Ser. No. 303,260.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| US 2004034188 | A1 | 20040219 | US 2003-431294 | 20030507 |
| US 6916962 | B2 | 20050712 | | |

KR 2003048293 A 20030619 KR 2001-78244 20011211
 US 2003153694 A1 20030814 US 2002-303260 20021125
 US 2004122164 A1 20040624 US 2003-661268 20030912
 US 2004147687 A1 20040729 US 2003-715607 20031118
 PRIORITY APPLN. INFO.: KR 2001-78244 A 20011211
 US 2002-348452P P 20020116
 US 2002-381503P P 20020517
 US 2002-407741P P 20020903
 US 2002-303260 A2 20021125
 US 2003-431294 A2 20030507
 US 2003-661268 A2 20030912

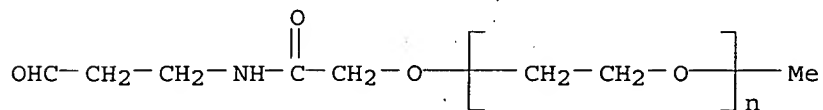
AB The present invention provides novel monofunctional polyethylene glycol aldehydes for the pegylation of therapeutically active proteins. The pegylated protein conjugates that are produced, retain a substantial portion of their therapeutic activity and are less immunogenic than the protein from which the conjugate is derived. New syntheses for preparing such aldehydes are described.

IC ICM C08G065-00
 INCL 528230000; 528250000
 CC 35-8 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 63
 IT 544706-95-8P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (novel monofunctional polyethylene glycol aldehydes for pegylation of therapeutically active proteins)

IT 314065-74-2DP, Acrylic acid-ethylene oxide graft copolymer methyl ether, ester with N-hydroxysuccinimide, displacement reaction products with 1-amino-4,4-dimethoxybutane, deacetalized compds. 533881-58-2P
 544706-97-0P 544706-99-2P 544707-02-0P
 544707-05-3P 544708-06-7P
 RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (novel monofunctional polyethylene glycol aldehydes for pegylation of therapeutically active proteins)

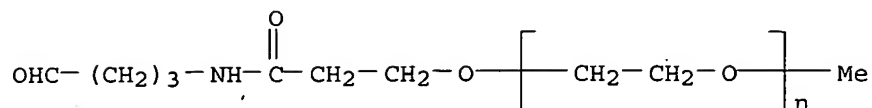
IT 544706-95-8P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (novel monofunctional polyethylene glycol aldehydes for pegylation of therapeutically active proteins)

RN 544706-95-8 HCAPLUS
 CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-oxo-2-[(3-oxopropyl)amino]ethoxy]- (9CI) (CA INDEX NAME)

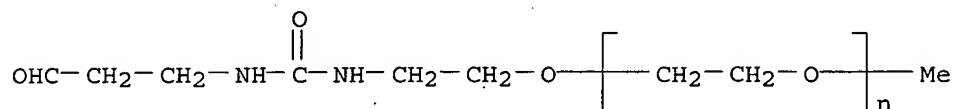


IT 544706-97-0P 544707-02-0P 544707-05-3P
 RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (novel monofunctional polyethylene glycol aldehydes for pegylation of therapeutically active proteins)

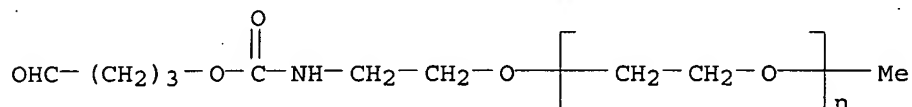
RN 544706-97-0 HCAPLUS
 CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[3-oxo-3-[(4-oxobutyl)amino]propoxy]- (9CI) (CA INDEX NAME)



RN 544707-02-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-[[[(3-oxopropyl)amino]carbonyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

RN 544707-05-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-[[[(4-oxobutoxy)carbonyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

L71 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:120875 HCAPLUS

DOCUMENT NUMBER: 140:187355

TITLE: Preparation of PEGylated T1249 polypeptide conjugates as antiviral agents

INVENTOR(S): Bailon, Pascal Sebastian; Won, Chee-Youb

PATENT ASSIGNEE(S): F. Hoffmann-La Roche AG, Switz.

SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

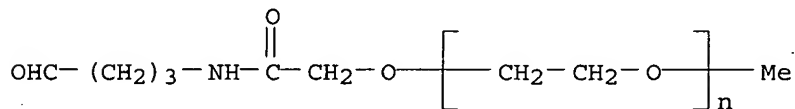
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

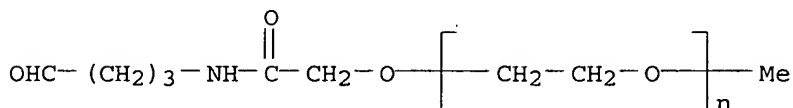
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|--|----------|-----------------|----------|
| WO 2004013165 | A1 | 20040212 | WO 2003-EP7711 | 20030716 |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| CA 2492954 | AA | 20040212 | CA 2003-2492954 | 20030716 |
| EP 1546193 | A1 | 20050629 | EP 2003-766191 | 20030716 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, | | | |

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 US 2004171542 A1 20040902 US 2003-625103 20030722
 PRIORITY APPLN. INFO.: US 2002-398190P P 20020724
 US 2003-439213P P 20030110
 WO 2003-EP7711 W 20030716

- AB Pegylated T1249 polypeptide compds. are provided. Also provided are pharmaceutical compns. containing pegylated T1249 polypeptide compds., and processes of making. Further provided is the use of pharmaceutical composition comprising, in admixt. with a pharmaceutically acceptable excipient, a PEGylated T1249 polypeptide conjugate, for the preparation of a medicament for the inhibition of HIV infection. Propionaldehyde-PEG was reacted with T1249 to obtain propionaldehyde-PEG-T1249 conjugate. Antiviral efficacy of the conjugate was shown in rats.
- IC ICM C07K014-16
 ICS A61K038-16; A61P031-18
- CC 63-5 (Pharmaceuticals)
 Section cross-reference(s): 1
- IT 125061-88-3DP, reaction with T1249 251562-00-2DP, T1249, conjugates with polyethylene glycol derivs. 650634-82-5DP, reaction with T1249 650634-82-5P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of PEGylated T1249 polypeptide conjugates as antiviral agents)
- IT 650634-82-5DP, reaction with T1249 650634-82-5P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of PEGylated T1249 polypeptide conjugates as antiviral agents)
- RN 650634-82-5 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-oxo-2-[(4-oxobutyl)amino]ethoxy]- (9CI) (CA INDEX NAME)



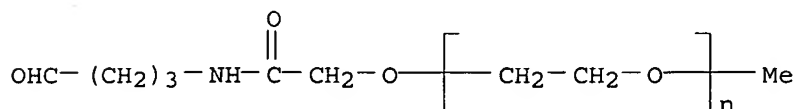
- RN 650634-82-5 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-oxo-2-[(4-oxobutyl)amino]ethoxy]- (9CI) (CA INDEX NAME)



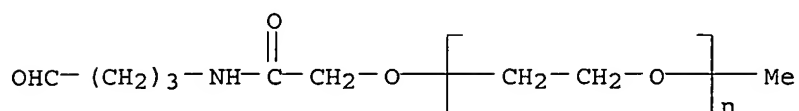
L71 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:120874 HCAPLUS
 DOCUMENT NUMBER: 140:187354
 TITLE: Preparation of PEGylated T20 polypeptide conjugates as antiviral agents
 INVENTOR(S): Bailon, Pascal Sebastian; Won, Chee-Youb
 PATENT ASSIGNEE(S): F. Hoffmann-La Roche AG, Switz.

SOURCE: PCT Int. Appl., 38 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|----------|-----------------|------------|
| WO 2004013164 | A1 | 20040212 | WO 2003-EP7710 | 20030716 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2493534 | AA | 20040212 | CA 2003-2493534 | 20030716 |
| EP 1527088 | A1 | 20050504 | EP 2003-766190 | 20030716 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| US 2004049018 | A1 | 20040311 | US 2003-623873 | 20030721 |
| PRIORITY APPLN. INFO.: | | | US 2002-398195P | P 20020724 |
| | | | WO 2003-EP7710 | W 20030716 |
| AB | Pegylated T20 polypeptide compds. are provided. Also provided are pharmaceutical compns. containing pegylated T20 polypeptide compds., and processes of making and using such compds. and compns. Propionaldehyde-PEG was reacted with T20 to obtain propionaldehyde-PEG-T20 conjugate (I). The IC50 of I was 0.261 µg/mL. | | | |
| IC | ICM C07K014-16 ICS A61K038-16; A61P031-18 | | | |
| CC | 63-5 (Pharmaceuticals) Section cross-reference(s): 1 | | | |
| IT | 125061-88-3DP, reaction with T20 peptide 159519-65-ODP, T20, conjugates with polyethylene glycol derivs. 650634-82-5DP, reaction with T20 peptide 650634-82-5P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of PEGylated T20 polypeptide conjugates as antiviral agents) | | | |
| IT | 650634-82-5DP, reaction with T20 peptide 650634-82-5P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of PEGylated T20 polypeptide conjugates as antiviral agents) | | | |
| RN | 650634-82-5 HCAPLUS | | | |
| CN | Poly(oxy-1,2-ethanediyl), α-methyl-ω-[2-oxo-2-[(4-oxobutyl)amino]ethoxy]- (9CI) (CA INDEX NAME) | | | |



RN 650634-82-5 HCAPLUS
 CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-oxo-2-[(4-oxobutyl)amino]ethoxy] - (9CI) (CA INDEX NAME)



L71 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:80370 HCAPLUS
 DOCUMENT NUMBER: 140:128840
 TITLE: Aldehyde derivatives of polyethylene glycol
 INVENTOR(S): Won, Chee-youb
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 18 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| US 2004019157 | A1 | 20040129 | US 2003-623978 | 20030721 |
| CA 2493221 | AA | 20040212 | CA 2003-2493221 | 20030716 |
| WO 2004013205 | A1 | 20040212 | WO 2003-EP7734 | 20030716 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 1539857 | A1 | 20050615 | EP 2003-766194 | 20030716 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| PRIORITY APPLN. INFO.: | | | US 2002-398196P | P 20020724 |
| | | | WO 2003-EP7734 | W 20030716 |
| AB Polyethylene glycol aldehyde compds. of $\text{R}(\text{CH}_2\text{CH}_2\text{O})_n\text{CH}_2\text{CH}_2\text{XYNH}(\text{CH}_2)_p\text{CHO}$ (wherein R = capping groups; X = O, NH; Y = alkylencarbonyl, carbonyl, hydroxyalkylene, amido group; n = 10-10,000; and p = 1-3) or the like are provided. Methods of making and using such compds., as well as chemical intermediates are also provided, which may be used in connection with the pegylation of polypeptides and other biomols. (no data). | | | | |
| IC ICM C08G065-00 | | | | |
| INCL 525403000; 528405000 | | | | |
| CC 35-8 (Chemistry of Synthetic High Polymers) | | | | |
| Section cross-reference(s): 34 | | | | |
| IT 650634-80-3P 650634-82-5P 650634-83-6P | | | | |
| 650634-84-7P | | | | |
| RL: IMF (Industrial manufacture); PREP (Preparation) | | | | |
| (manufacture of aldehyde derivs. of polyethylene glycol) | | | | |

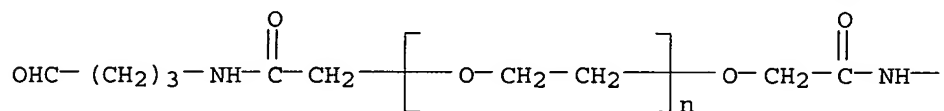
IT 650634-80-3P 650634-82-5P 650634-83-6P
650634-84-7P

RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of aldehyde derivs. of polyethylene glycol)

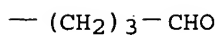
RN 650634-80-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[2-oxo-2-[(4-oxobutyl)amino]ethyl]-
 ω -[2-oxo-2-[(4-oxobutyl)amino]ethoxy] - (9CI) (CA INDEX NAME)

PAGE 1-A

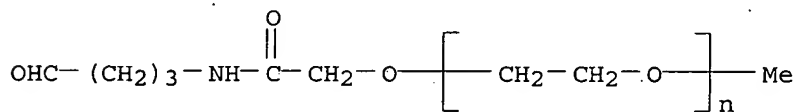


PAGE 1-B



RN 650634-82-5 HCAPLUS

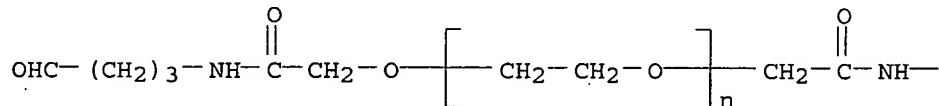
CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-oxo-2-[(4-oxobutyl)amino]ethoxy] - (9CI) (CA INDEX NAME)



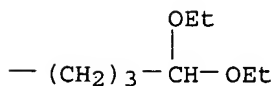
RN 650634-83-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[2-[(4,4-diethoxybutyl)amino]-2-oxoethyl]- ω -[2-oxo-2-[(4-oxobutyl)amino]ethoxy] - (9CI) (CA INDEX NAME)

PAGE 1-A



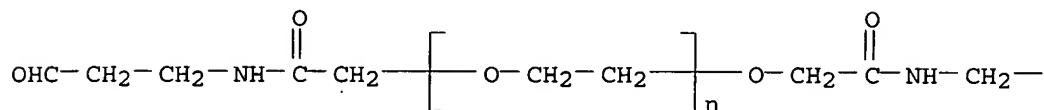
PAGE 1-B



RN 650634-84-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[2-oxo-2-[(3-oxopropyl)amino]ethyl]-
 ω -[2-oxo-2-[(3-oxopropyl)amino]ethoxy] - (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— CH₂— CHO

L71 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:472355 HCAPLUS

DOCUMENT NUMBER: 139:53490

TITLE: Monofunctional polyethylene glycol aldehydes with
various spacers, their preparation and protein
conjugates

INVENTOR(S): Rosen, Perry; Nho, Kwang

PATENT ASSIGNEE(S): Sun Bio, Inc., USA

SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

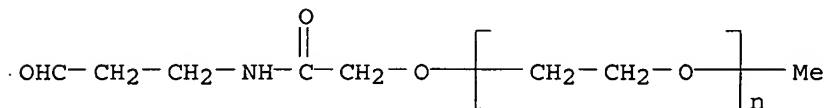
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

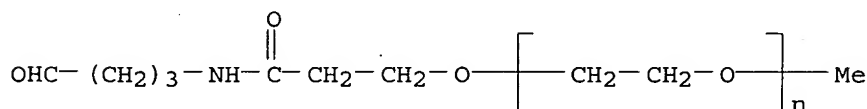
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| WO 2003049699 | A2 | 20030619 | WO 2002-US39434 | 20021209 |
| WO 2003049699 | A3 | 20041229 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| KR 2003048293 | A | 20030619 | KR 2001-78244 | 20011211 |
| EP 1507755 | A2 | 20050223 | EP 2002-792347 | 20021209 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | |
| PRIORITY APPLN. INFO.: | | | KR 2001-78244 | A 20011211 |
| | | | US 2002-348452P | P 20020116 |
| | | | US 2002-381503P | P 20020517 |
| | | | US 2002-407741P | P 20020903 |
| | | | WO 2002-US39434 | W 20021209 |

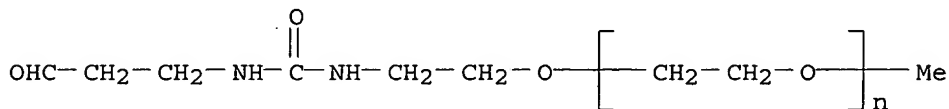
- AB Novel monofunctional polyethylene glycol aldehydes are for pegylating therapeutically active proteins to produce pegylated protein conjugates which retain a substantial portion of their therapeutic activity and are less immunogenic than the protein from which the conjugate is derived.
- IC ICM A61K
- CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 63
- IT 112344-11-3DP, Acrylic acid-ethylene oxide graft copolymer, reaction products with hydroxysuccinimide, aminodiethoxypropane, and aldehyde formation 533881-58-2P 544706-95-8P 544706-97-0P 544706-99-2P 544707-02-0P 544707-05-3P 544708-06-7P
RL: IMF (Industrial manufacture); PREP (Preparation)
(polyethylene glycol aldehydes with various spacers for conjugates with therapeutically active proteins)
- IT 544706-95-8P 544706-97-0P 544707-02-0P 544707-05-3P
RL: IMF (Industrial manufacture); PREP (Preparation)
(polyethylene glycol aldehydes with various spacers for conjugates with therapeutically active proteins)
- RN 544706-95-8 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-oxo-2-[(3-oxopropyl)amino]ethoxy] - (9CI) (CA INDEX NAME)



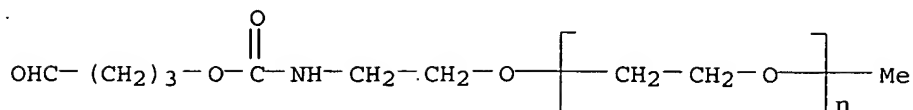
- RN 544706-97-0 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[3-oxo-3-[(4-oxobutyl)amino]propoxy] - (9CI) (CA INDEX NAME)



- RN 544707-02-0 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-[[[(3-oxopropyl)amino]carbonyl]amino]ethoxy] - (9CI) (CA INDEX NAME)



- RN 544707-05-3 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -[2-[[[(4-oxobutoxy)carbonyl]amino]ethoxy] - (9CI) (CA INDEX NAME)



L71 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:888697 HCAPLUS

DOCUMENT NUMBER: 137:389143

TITLE: Complexes for transferring therapeutic proteins and nucleic acids into an animal cell

INVENTOR(S): Braun, Serge; Meyer, Olivier; Nazih, Abdesslame; Heissler, Denis

PATENT ASSIGNEE(S): Transgene S.A., Fr.

SOURCE: PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO 2002092554 | A1 | 20021121 | WO 2002-EP5304 | 20020514 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2447548 | AA | 20021121 | CA 2002-2447548 | 20020514 |
| EP 1389182 | A1 | 20040218 | EP 2002-750924 | 20020514 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| JP 2004528384 | T2 | 20040916 | JP 2002-589440 | 20020514 |
| PRIORITY APPLN. INFO.: | | | EP 2001-440134 | A 20010515 |
| | | | US 2001-293188P | P 20010525 |
| | | | WO 2002-EP5304 | W 20020514 |

OTHER SOURCE(S): MARPAT 137:389143

AB The present invention concerns new polar compds., complexes and compns. comprising them, wherein the compound comprises: (i) a polar headgroup spacer, (ii) at least 1 hydrophobic moiety, and (iii) at least 1 hydrophilic polymer, and wherein the head-group spacer is coupled to the hydrophobic moiety and to the hydrophilic polymer. A lipid was prepared by the reaction of PEG monomethyl ether with H₂N(CH₂)₃N(BOC)(CH₂)₃N(BOC)(CH₂)₃NH₂ followed by reaction with an aldehyde containing oleoyl groups. A cationic lipid/DNA complex was obtained by the treatment of the above lipid with DNA.

IC ICM C07C271-20

ICS A61K048-00; C12N015-88

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 3, 23

IT 56-18-8 107-13-1, 2-Propenenitrile, reactions 156-87-6,

1-Amino-3-propanol 598-21-0, Bromoacetyl bromide 9004-74-4,

Polyethylene glycol monomethyl ether 24424-99-5, Di-tert-butyl
dicarbonate 29655-46-7 61278-21-5 93790-78-4 475576-35-3
475576-36-4 475576-37-5 475576-38-6 475576-39-7 475576-40-0
475576-41-1 475576-42-2 475576-43-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(in preparation of lipids containing PEG; complexes for transferring
therapeutic

proteins and nucleic acids into animal cell)

IT 475576-43-3

RL: RCT (Reactant); RACT (Reactant or reagent)

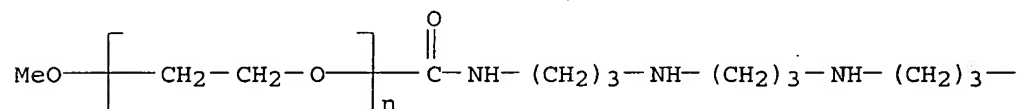
(in preparation of lipids containing PEG; complexes for transferring
therapeutic

proteins and nucleic acids into animal cell)

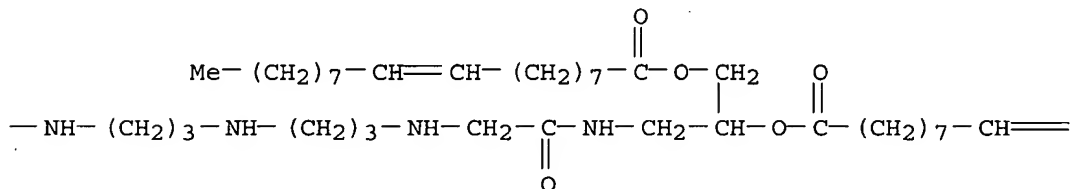
RN 475576-43-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[(27S,38Z)-1,24,30-trioxo-27-[[(9Z)-1-
oxo-9-octadecenyl]oxy]-29-oxa-2,6,10,14,18,22,25-heptaazaheptatetracont-38-
en-1-yl]- ω -methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



PAGE 1-C



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L71 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:496066 HCAPLUS

DOCUMENT NUMBER: 121:96066

TITLE: Electrophotographic lithographic plate

INVENTOR(S): Kato, Eiichi

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 80 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 05216294 | A2 | 19930827 | JP 1992-47658 | 19920204 |
| PRIORITY APPLN. INFO.: | | | JP 1992-47658 | 19920204 |

AB In the title lithog. platemaking using an electrophotog. plate possessing ≥ 1 photoconductor layers and a claimed surface layer, the latter contains dispersion resin particles (L), the binder resin for the photoconductive layer contains ≥ 1 claimed binder resins (A), the latent image produced on the electrophotog. plate is developed with a toner, and the photoconductive layer in the non-image-bearing regions is desensitized with a solution containing a hydrophilic compound (Pearson's nucleophilic constant ≥ 5). L is obtained by dispersion polymerizing, in a nonaq. solvent, a monofunctional monomer containing ≥ 1 functional groups selected from a formyl group and a group expressed by CH(OA1)(OA2) [A1, A2 = hydrocarbyl, or may join together to form a ring], with a monofunctional monomer containing substituents containing Si and/or F in the presence of a soluble dispersion-stabilizing agent. A (weight average mol. weight

1x10³-2x10⁴) contains the polymer component CHA₁Ca₂(CO₂R) [a₁, a₂ = H, halo, CN, hydrocarbyl; R = hydrocarbyl] > 30% and a polymer component containing > 1 polar groups selected from PO₃H₂, SO₃H, CO₂H, P(O)(OH)R (R = hydrocarbyl, oxyhydrocarbyl), and cyclic acid anhydride-containing group, 0.5-15%.

IC ICM G03G013-28
 ICS G03G005-05; G03G005-06; G03G005-147

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 152640-64-7P 152681-23-7P 152681-24-8P 152681-27-1P
 152725-78-5P 156440-91-4P
 RL: PREP (Preparation)
 (preparation of, as latex for lithog. platemaking)

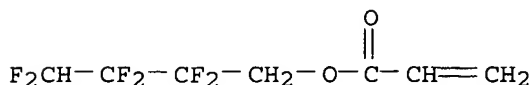
IT 152681-23-7P
 RL: PREP (Preparation)
 (preparation of, as latex for lithog. platemaking)

RN 152681-23-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2,2,3,3,4,4-hexafluorobutyl 2-propenoate and N-(3-oxopropyl)-2-propenamide, graft (9CI) (CA INDEX NAME)

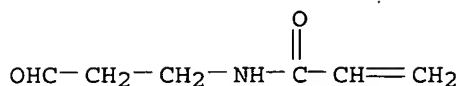
CM 1

CRN 61412-55-3
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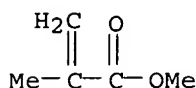
CM 2

CRN 40660-67-1
CMF C6 H9 N O2



CM 3

CRN 80-62-6
CMF C5 H8 O2



L71 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:496065 HCAPLUS
DOCUMENT NUMBER: 121:96065
TITLE: Electrophotographic lithographic platemaking
INVENTOR(S): Kato, Eiichi
PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 83 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| JP 05216292 | A2 | 19930827 | JP 1992-47652 | 19920204 |

PRIORITY APPLN. INFO.: JP 1992-47652 19920204

AB The title lithog. platemaking is effected by producing a toner image on a lithog. blank (electrophotog. plate) and desensitizing the non-image-bearing regions with a desensitizing solution containing a hydrophilic

compound having a Pearson's nucleophilic constant of ≥ 5.5 , the lithog. blank possessing ≥ 1 photoconductor layers containing a binder resin(s) (A) and a surface layer containing nonaq. system-dispersed resin particles (L). L are nonaq. solution-dispersed resin particles obtained by polymerizing ≥ 1 types of monofunctional monomers containing a formyl group(s) and(or) groups CH(OA1)(OA2) [a1, a2 = hydrocarbyl; may combine to form a ring] with a monofunctional monomer containing Si and(or) F-containing substituents in the presence of a soluble dispersion-stabilizing resin. Resin A (weight average mol. weight 1×10^3 - 2×10^4) contains the polymer component CHa1:Ca2(CO2R) [a1,a2 = H, halo, CN, hydrocarbyl; R = hydrocarbyl] $\geq 30\%$, and its polymer chain is terminated at 1 end by a polar group selected from PO3H2, SO3H, CO2H, P(O)(OH)R (R = hydrocarbyl, oxycarbohydryl), and a group containing cyclic acid anhydride.

IC ICM G03G013-28
ICS G03G005-05; G03G005-06; G03G005-147

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 79-41-4D, Methacrylic acid, fluoroalkyl ester, graft copolymers with methacrylates 97-90-5D, Ethyleneglycol dimethacrylate, fluorinated graft copolymers with methacrylates 106-91-2D, Glycidyl methacrylate, fluorinated graft copolymers with methacrylates 142-09-6D, Hexyl methacrylate, fluorinated graft copolymers with methacrylates 139288-11-2D, fluorinated graft copolymers with methacrylates 149234-56-0 152640-58-9 152640-60-3 152640-61-4 152640-62-5 152640-64-7 152681-23-7 152681-25-9 152681-27-1 152681-47-5, Acrolein-ethylene glycol dimethacrylate-glycidyl methacrylate-3,3,4,4,5,5-hexafluoropentyl methacrylate-hexyl methacrylate graft copolymer 152681-48-6 152725-66-1 152725-67-2 152725-68-3 152725-69-4 152725-70-7 152725-78-5, Acrolein-acrylonitrile-2,2,3,3,4,4-hexafluorobutyl acrylate-methyl methacrylate graft copolymer 156562-55-9 156562-56-0 156562-57-1 156562-58-2 156562-59-3 156562-60-6 156562-61-7 156562-62-8 156562-63-9 156562-64-0 156562-65-1 156562-66-2 156562-67-3 156562-68-4 156562-69-5 156562-70-8 156562-71-9 156562-72-0

RL: USES (Uses)
(electrophotog. plate for lithog. platemaking surface layer containing)

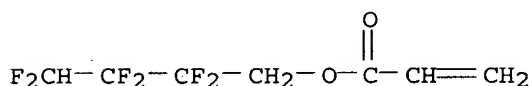
IT 152681-23-7
RL: USES (Uses)
(electrophotog. plate for lithog. platemaking surface layer containing)

RN 152681-23-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2,2,3,3,4,4-hexafluorobutyl 2-propenoate and N-(3-oxopropyl)-2-propenamide, graft (9CI) (CA INDEX NAME)

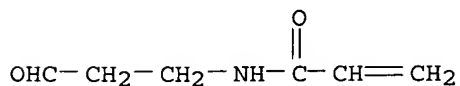
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CRN 61412-55-3
CMF C7 H6 F6 O2



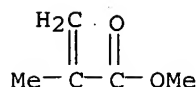
CM 2

CRN 40660-67-1
CMF C6 H9 N O2



CM 3

CRN 80-62-6
CMF C5 H8 O2



L71 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1994:335000 HCAPLUS
 DOCUMENT NUMBER: 120:335000
 TITLE: Manufacture of lithographic master
 INVENTOR(S): Kato, Eiichi; Kasai, Kyosuke
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 63 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 05066579 | A2 | 19930319 | JP 1991-254154 | 19910906 |
| PRIORITY APPLN. INFO.: | | | JP 1991-254154 | 19910906 |

AB The title lithog. master is obtained by producing a toner image on a claimed electrophotog. plate then desensitizing the areas not bearing the toner image with a hydrophilic solution having a Pearson nucleophilic constant value of ≥ 5.5 . The electrophotog. plate utilizes ≥ 1 photoconductor layer containing photoconductive ZnO particles, a spectral sensitizer dye, ≥ 1 claimed binder resin, and nonaq. solvent-dispersed resin particles of particle size equal to or smaller than that of the above ZnO particles. The above resin (weight average mol. weight 1

+ 103-2 + 104) contains ($\geq 30\%$) polymer component $\text{CHa1Ca2}(\text{CO2R3})$ [a1 , a2 = H, halo, CN, hydrocarbyl; R3 = hydrocarbyl] and possesses at 1 end polar terminal groups selected from PO3H2 , SO3H , CO2H , P(O)(OH)R1 , etc. The above nonaq. solvent-dispersed resin particles are obtained by dispersion polymerizing a monofunctional monomer, containing a formyl group(s) and(or) CH(OA1)(OA2) [A1 , A2 = hydrocarbyl or may join to form a ring], with a monofunctional monomer containing substituents containing F and(or)

Si in the presence of a soluble dispersion-stabilizing resin. The electrophotog. plate possesses superior electrostatic and mech. characteristics even under severe use conditions and the lithog. master obtained also gives stain-free copies over an extended run.

IC ICM G03G005-05

ICS G03G005-05; G03G005-06; G03G005-08; G03G013-28

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 79-41-4D, fluoroalkyl ester, graft copolymer with methacrylates, uses 97-90-5D, graft copolymer with methacrylates 106-91-2D, graft copolymer with methacrylates 142-09-6D, graft copolymer with methacrylates 139288-11-2D, graft copolymer with methacrylates 149265-77-0

| | | | |
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| 152640-58-9 | 152640-60-3 | 152640-61-4 | 152681-23-7 |
| 152681-47-5 | 152681-48-6 | 152725-66-1 | 152725-67-2 |
| 152725-69-4 | 152725-70-7 | 152725-71-8 | 152725-72-9 |
| 152725-74-1 | 152725-76-3 | 152725-77-4 | 152725-78-5 |
| 155313-62-5 | 155313-63-6 | 155313-64-7 | 155605-47-3 |
| 155605-49-5 | 155605-50-8 | 155605-51-9 | 155605-52-0 |
| | | | 155605-53-1 |

155605-54-2 155605-55-3 155605-56-4 155605-57-5 155605-58-6

RL: USES (Uses)

(latex from, electrophotog. lithog. plate from)

IT 152681-23-7

RL: USES (Uses)

(latex from, electrophotog. lithog. plate from)

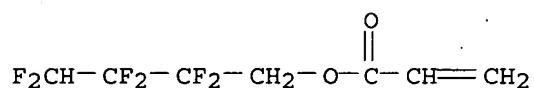
RN 152681-23-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
2,2,3,3,4,4-hexafluorobutyl 2-propenoate and N-(3-oxopropyl)-2-
propenamide, graft (9CI) (CA INDEX NAME)

CM 1

CRN 61412-55-3

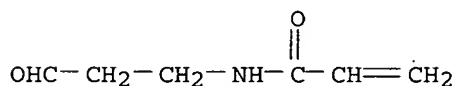
CMF C7 H6 F6 O2



CM 2

CRN 40660-67-1

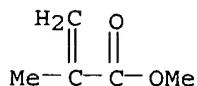
CMF C6 H9 N O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



L71 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:284869 HCAPLUS

DOCUMENT NUMBER: 120:284869

TITLE: Manufacture of electrophotographic lithographic
printing plate

INVENTOR(S): Kato, Eiichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 04350670 | A2 | 19921204 | JP 1991-123783 | 19910528 |
| PRIORITY APPLN. INFO.: | | | JP 1991-123783 | 19910528 |

AB For an electrophotog. lithog. printing plate having ≥ 1 photoconductive layer made up of a photoconductive ZnO grains and a binder resin on a conductive support, the manufacture comprises: effecting imagewise exposure to form a toner image on an electrophotog. photoreceptor containing ≥ 1 kind of non-aqueous dispersion resin particles with a diameter equal to or smaller than that of a maximum grain diameter of the photoconductive ZnO grains; and desensitizing the photoreceptor by using a solution containing a hydrophilic compound having Pearson's nucleophilic constant ≥ 5.5 . Said dispersion stabilizing resin can be obtained by copolymerizing a monofunctional monomer (A) containing ≥ 1 functional group represented by formyl and/or CH(OR1)(OR2) [R1,2 = hydrocarbon; R1 and R2 may form a cyclic organic residue] with a monofunctional monomer (B) having Si- and/or F-containing group.

IC ICM G03G013-26
ICS B41N003-08; G03G005-05; G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35

IT 25719-51-1DP, 2-Ethylhexyl methacrylate homopolymer, carboxy-terminated, ester with 2-hydroxyethyl methacrylate 145807-49-4P 147130-23-2P
148878-95-9P 149072-21-9DP, reaction products with allylamine
149093-90-3P 149234-63-9P 149235-47-2P 149275-08-1P 149368-81-0P
149368-84-3P 149433-97-6P 149433-98-7P 149433-99-8P 149434-02-6P
149434-09-3P 149434-10-6P 149434-11-7P 149434-17-3P 149434-38-8P
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(preparation of, electrophotog. lithog. printing plate from)

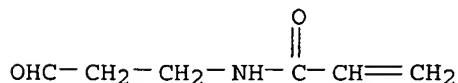
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RL: PREP (Preparation)
(preparation of, electrophotog. lithog. printing plate from)

RN 150753-07-4 HCAPLUS

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CM 1

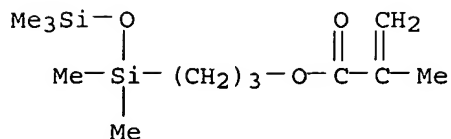
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CM 2

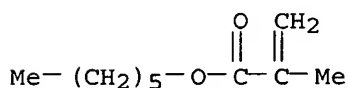
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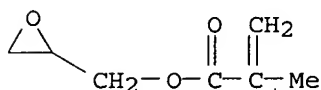
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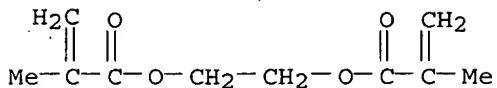
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CRN 106-91-2
 CMF C7 H10 O3



CM 5

CRN 97-90-5
 CMF C10 H14 O4



L71 ANSWER 16 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:148984 HCAPLUS

DOCUMENT NUMBER: 120:148984

TITLE: Manufacture of lithographic printing plate having
 excellent water-retaining properties

INVENTOR(S): Kato, Eiichi

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 81 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 05100504 | A2 | 19930423 | JP 1991-289414 | 19911009 |
| PRIORITY APPLN. INFO.: | | | JP 1991-289414 | 19911009 |

AB The manufacture of a lithog. printing plate, which has ≥ 1 photoconductor layer on a conductive support and an uppermost surface layer, comprises effecting imagewise exposure of the lithog. printing plate containing nonaq. dispersion resin particles in the surface layer and and a binder resin in the photosensitive layer to form a toner image and desensitizing nonimage regions of the photoconductor layer with a solution containing a hydrophilic compound having a Pearson's nucleophilic constant ≥ 5.5 . The nonaq. dispersion resin particles are copolymer particles which are obtained by polymerizing in a nonaq. solvent a monofunctional monomer, which (soluble in the solvent but becoming insol. upon polymerization) contains formyl and/or CH(OA1)(OA2) [A1,2 = hydrocarbyl, organic residues combining together to form a ring], in the presence of a dispersion stabilizing resin made up of a repeating unit containing Si- and/or F-bearing substituent and the binder resin with a weight-average mol. weight 1000-20,000 contains a repeating unit [Ca1HCa2(COOR1)] [a1,2 = H, halo, cyano, hydrocarbyl; R1 = hydrocarbyl] $\geq 30\%$ and a polymer component 0.5-15% containing ≥ 1 kind of a polar moiety selected from PO3H2, SO3H, COOH, P(:O)(OH)R2 [R2 = hydrocarbyl, OR3; R3 = hydrocarbyl] and a group containing cyclic anhydride.

IC ICM G03G013-28
ICS G03G005-05; G03G005-06; G03G005-147

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

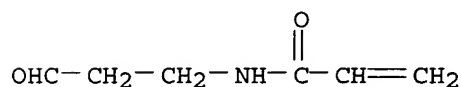
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145807-41-6P 145807-51-8P 145807-53-0P 145807-54-1P 145807-55-2P
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145807-66-5P 145807-68-7P 145807-70-1P 145807-71-2P 145807-72-3P
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146817-61-0P 146966-35-0P 147524-36-5P 147545-76-4P 149072-24-2DP, reaction product with 2-isocyanatoethyl methacrylate 149368-83-2P
149368-85-4P 149434-15-1P 149434-21-9P 149434-25-3P 149434-28-6P
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149934-66-7P 149962-75-4P 151864-21-0P 152586-80-6P 152586-81-7DP, reaction product with acrylamide 153147-24-1P
RL: TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of, for lithog. printing plate preparation)

IT 149698-52-2P
RL: TEM (Technical or engineered material use); PREP (Preparation); USES

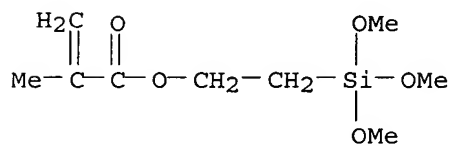

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(preparation of, for lithog. printing plate preparation)
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CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
N-(3-oxopropyl)-2-propenamide and 2-(trimethoxysilyl)ethyl
2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

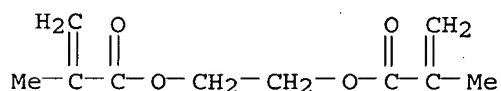
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CMF C9 H18 O5 Si



CMF C10 H14 O4



PATENT INFORMATION:

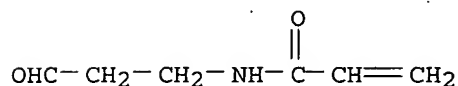
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|------------------------|---|--------------|---|-----------------|---|
| | JP 05100503 | A2 | 19930423 | JP 1991-289413 | 19911009 |
| PRIORITY APPLN. INFO.: | | | | JP 1991-289413 | 19911009 |
| AB | <p>The manufacture of a lithog. printing plate, which has ≥ 1 photoconductor layer on a conductive support and an uppermost surface layer, comprises effecting imagewise exposure of the lithog. printing plate containing nonaq. dispersion resin particles in the surface layer and a binder resin in the photosensitive layer to form a toner image and desensitizing nonimage regions of the photoconductor layer with a solution containing a hydrophilic compound having a Pearson's nucleophilic constant ≥ 5.5. The nonaq. dispersion resin particles are copolymer particles which are obtained by polymerizing in a nonaq. solvent a monofunctional monomer, which (soluble in the</p> <p>solvent but becoming insol. upon polymerization) contains formyl and/or CH(OA1)(OA2) [A1,2 = hydrocarbyl, organic residues combining together to form a ring], in the presence of a dispersion stabilizing resin made up of a repeating unit containing Si- and/or F-bearing substituent. The binder resin with a weight-average mol. weight 1000-20,000 contains a repeating unit [CalHCA2(COOR1)] [a1,2 = H, halo, cyano, hydrocarbyl; R1 = hydrocarbyl] $\geq 30\%$ and terminated, on one end of the backbone chain, with a polar moiety selected from PO3H2, SO3H, COOH, P(:O)(OH)R2 [R2 = hydrocarbyl, OR3; R3 = hydrocarbyl] and a group containing cyclic anhydride.</p> | | | | |
| IC | <p>ICM G03G013-28</p> <p>ICS B41N003-08; G03G005-147</p> | | | | |
| CC | 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
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| | 138059-28-6P | 138059-29-7P | 138059-30-0P | 138059-31-1P | 138059-32-2P |
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| | 139989-86-9P | 139989-94-9P | 142199-53-9P | 145168-75-8P | 145168-89-4P |
| | 145168-94-1P | 145169-02-4P | 145169-03-5P | 145169-04-6P | 145169-24-0P |
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| | 145807-51-8P | 145807-53-0P | 145807-54-1P | 145807-55-2P | 145807-56-3P |
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| | 145807-68-7P | 145807-70-1P | 145807-71-2P | 145807-72-3P | 145807-78-9P |
| | 145807-80-3P | 146115-83-5P | 146188-26-3DP, carboxy-terminated, ester with 2-hydroxyethyl methacrylate | 146716-90-7P | 146716-92-9P |
| | 146716-99-6P | 146717-07-9P | 146966-35-0P | 147545-76-4P | 149072-24-2DP, reaction product with isocyanatoethyl methacrylate |
| | 149368-83-2P | 149368-85-4P | 149434-15-1P | 149434-21-9P | 149434-25-3P |
| | 149434-28-6P | 149434-33-3P | 149658-55-9P | 149698-33-9P | 149698-34-0P |
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| | 149765-50-4P | 149934-66-7P | 149962-75-4P | 151864-21-0P | 152586-80-6P |
| | 152586-81-7DP, reaction product with acrylamide | 153147-24-1P | | | |
| | RL: TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) | | | | |
| | (preparation of, for lithog. printing plate preparation) | | | | |
| IT | 149698-52-2P | | | | |
| | RL: TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) | | | | |
| | (preparation of, for lithog. printing plate preparation) | | | | |
| RN | 149698-52-2 | HCAPLUS | | | |
| CN | 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with | | | | |

N-(3-oxopropyl)-2-propenamide and 2-(trimethoxysilyl)ethyl
2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 40660-67-1

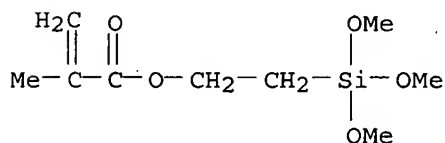
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CM 2

CRN 15289-97-1

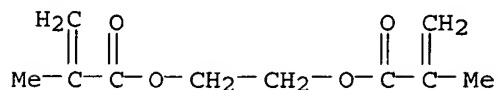
CMF C9 H18 O5 Si



CM 3

CRN 97-90-5

CMF C10 H14 O4



L71 ANSWER 18 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:148980 HCAPLUS

DOCUMENT NUMBER: 120:148980

TITLE: Manufacture of lithographic plate from
electrophotographic photoreceptor

INVENTOR(S): Kato, Eiichi; Kasai, Kyosuke

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 87 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| JP 05061214 | A2 | 19930312 | JP 1991-250310 | 19910904 |
| PRIORITY APPLN. INFO.: | | | JP 1991-250310 | 19910904 |

AB The manufacture of a lithog. plate from an electrophotog. photoreceptor, which has ≥ 1 photosensitive layer containing at least photoconductive ZnO grains, a spectral sensitizing dye, and a binder resin on a conductive support, comprises effecting imagewise exposure of the electrophotog. photoreceptor containing the binder resin in the photosensitive layer and ≥ 1 kind of nonaq. dispersion resin grains having the average grain diameter equal to or smaller than that of the maximum grain diameter of the ZnO grains to form a toner image and effecting desensitization process of nonimage regions by using a solution containing a hydrophilic compound with Pearson's nucleophilic constant ≥ 5.5 ; . The binder resin, with weight average mol. weight 1000-20,000, has a repeating unit $[\text{CHa1Ca2COOR1}]$ [$\text{a1,2} = \text{H, halo, cyano, hydrocarbyl}$; $\text{R1} = \text{hydrocarbyl}$] as a polymer component $\geq 30\%$ and another polymer component 0.5-15% containing ≥ 1 polar moiety selected from PO3H2 , SO3H , COOH , and $\text{P}(\text{:O})(\text{OH})\text{R2}$ [$\text{R2} = \text{hydrocarbyl}$ or OR3 ; $\text{R3} = \text{hydrocarbyl}$] and a moiety containing a cyclic anhydride group. The nonaq. dispersion resin grains are made of a copolymer obtained through dispersion polymerization of a monofunctional monomer, which contains formyl and/or $\text{CH}(\text{OA1})(\text{OA2})$ [$\text{A1,2} = \text{hydrocarbyl}$] and is soluble in the nonaq. solvent but becoming insol. upon polymerization, with a monofunctional monomer containing Si and/or F.

IC ICM G03G005-05

ICS G03G005-05; G03G005-06; G03G005-08; G03G013-28

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 25719-51-1DP, 2-Ethylhexyl methacrylate homopolymer, carboxy-terminated, ester with 2-hydroxyethyl methacrylate 52229-66-0P 65697-21-4P
 65697-22-5P 126969-78-6P 130094-33-6P 130952-79-3P 131808-63-4P
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RL: PREP (Preparation)

(preparation of, for electrophotog. photoreceptor for lithog. plate preparation)

IT 152681-23-7P

RL: PREP (Preparation)

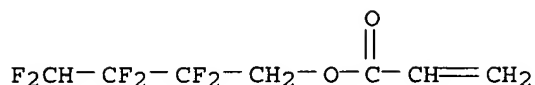
(preparation of, for electrophotog. photoreceptor for lithog. plate preparation)

RN 152681-23-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2,2,3,3,4,4-hexafluorobutyl 2-propenoate and N-(3-oxopropyl)-2-propenamide, graft (9CI) (CA INDEX NAME)

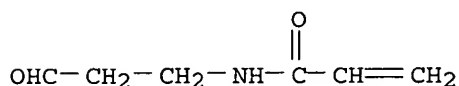
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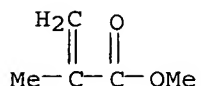
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CMF C6 H9 N O2



CM 3

CRN 80-62-6
CMF C5 H8 O2



L71 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:41999 HCAPLUS

DOCUMENT NUMBER: 120:41999

TITLE: Electrophotographic lithographic printing plate giving high sensitivity to semiconductor laser scanning method

INVENTOR(S): Kato, Eiichi; Kasai, Kyosuke

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 84 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 05034949 | A2 | 19930212 | JP 1991-213049 | 19910731 |
| PRIORITY APPLN. INFO.: | | | JP 1991-213049 | 19910731 |

AB In an electrophotog. lithog. plate having ≥ 1 photoconductor layer containing photoconductive ZnO grains, a spectral sensitizing dye and a binder resin with the photoconductor layer containing ≥ 1 following binder resin (A) and ≥ 1 kind of nonaq. dispersion resin particles (L) whose average grain diameter is smaller than or equal to the maximum grain diameter of

the photoconductive ZnO particles, a toner image is formed on the photoreceptor by imagewise exposure following elec. charging, and nonimage regions of the photoconductor layer are desensitized with a hydrophilic compound-containing solution having Pearson's nucleophilic constant ≥ 5.5 . The binder resin (A) (weight average mol. weight 1,000-20,000) contains a

repeating

unit [a1HC-Ca2(COOR3)] [a1,2 = H, halo, cyano, hydrocarbon; R3 = hydrocarbon] as a polymer component $\geq 30\%$ and further contains a polymer component 0.5-15% having ≥ 1 polar moiety selected from PO3H2, SO3H, COOH, P(:O)(OH)R1 [R1 = hydrocarbon, OR2; R2 = hydrocarbon], and group containing cyclic anhydride. The nonaq. dispersion resin particles (L) are made of a copolymer obtained by dispersion polymerization of a monofunctional monomer (C) in the presence of a dispersion stabilizing resin, which, soluble in a nonaq. solvent, contains a repeating unit

containing a

moiety having Si and/or F, in which the monofunctional monomer (C), which, soluble in the nonaq. solvent but insol. upon polymerization, contains ≥ 1 functional group from formyl and/or HC(OA1)(OA2) [A1,2 = hydrocarbon; or may form a cyclic residue by combining together].

IC ICM G03G005-05

ICS G03G005-05; G03G005-06; G03G005-08; G03G013-28

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 65697-21-4P 65697-22-5P 126969-70-8P 126969-78-6P 130094-33-6P
 130952-79-3P 131808-63-4P 135740-18-0P 135740-30-6P 135740-31-7P
 135740-32-8P 135740-33-9P 135740-35-1P 135740-36-2P 135740-37-3P
 135740-38-4P 135740-39-5P 135740-41-9P 135740-43-1P 135740-44-2P
 135740-46-4P 135770-63-7P 135820-62-1P 139663-63-1P 142648-25-7P
 145168-75-8P 145168-89-4P 145168-94-1P 145169-02-4P 145169-03-5P
 145169-04-6P 145169-24-0P 145169-30-8P 145807-38-1P 145807-40-5P
 145807-51-8P 145807-53-0P 145807-54-1P 145807-55-2P 145807-56-3P
 145807-62-1P 145807-63-2P 145807-64-3P 145807-65-4P 145807-66-5P
 145807-68-7P 145807-70-1P 145807-71-2P 145807-72-3P 145807-78-9P
 145807-80-3P 146188-26-3DP, carboxy-terminated, ester with
 2-hydroxyethyl methacrylate 146817-57-4P 146817-58-5P 147524-36-5P
 149072-24-2DP, reaction product with 2-isocyanatoethyl methacrylate
 149368-83-2P 149368-85-4P 149434-15-1P 149434-25-3P 149434-28-6P
 149434-33-3P 149658-55-9P 149698-39-5P 149698-40-8P 149698-42-0P
 149698-43-1P 149698-46-4P 149698-47-5P 149698-48-6P 149698-49-7P
 149698-50-0P 149698-51-1P 149698-52-2P 149698-54-4P
 149698-55-5P 149698-56-6P 149698-57-7P 149698-58-8P 149698-59-9P
 149698-60-2P 149729-05-5P 149729-06-6P 149729-30-6P 149729-31-7P
 149729-32-8P 149729-33-9P 149765-50-4P 149934-66-7P 150103-52-9P
 150497-92-0P 151688-53-8P 151688-55-0P 151709-96-5P 151709-97-6P
 151754-98-2P 151754-99-3P 151755-00-9P 151755-01-0P 151755-02-1P
 151755-03-2P 151755-05-4P 151755-06-5P 151755-07-6P 151864-21-0P
 152103-17-8P

RL: PREP (Preparation)

(preparation of, electrophotog. lithog. printing plate from)

IT 149698-52-2P

RL: PREP (Preparation)

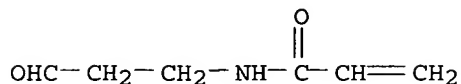
(preparation of, electrophotog. lithog. printing plate from)

RN 149698-52-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
 N-(3-oxopropyl)-2-propenamide and 2-(trimethoxysilyl)ethyl
 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

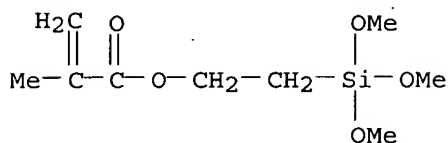
CM 1

CRN 40660-67-1
CMF C6 H9 N O2



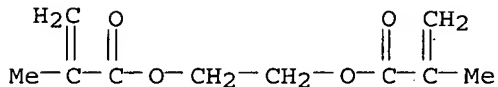
CM 2

CRN 15289-97-1
CMF C9 H18 O5 Si



CM 3

CRN 97-90-5
CMF C10 H14 O4



L71 ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:19184 HCAPLUS

DOCUMENT NUMBER: 120:19184

TITLE: Manufacture of electrophotographic plate for lithographic platemaking

INVENTOR(S): Kato, Eiichi; Kasai, Kyosuke

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 05002281 | A2 | 19930108 | JP 1991-154724 | 19910626 |
| PRIORITY APPLN. INFO.: | | | JP 1991-154724 | 19910626 |

AB The manufacture comprises forming a toner image on an electrophotog. plate described below by imagewise exposing, treating the photoconductive layer at the nonimage regions with a lipophobic desensitizing solution containing a hydrophilic compound of Pearson's nucleophilic constant ≥ 5.5 . In the above electrophotog. plate obtained by coating an elec. conductive support

with ≥ 1 photoconductive layers containing photoconductive ZnO and a binder resin, and a surface layer, the surface layer contains nonaq. solvent-dispersed resin particles of particle size equal to or smaller than that of the largest ZnO particles. The nonaq. solvent-dispersed resin particles are obtained by dispersion polymerizing a monofunctional monomer (A containing formyl and/or a functional group CH(OA1)(OA2) [R1,2 = hydrocarbon group; R1 and R2 may form a ring], with a monofunctional monomer (B) containing Si and/or F-containing substituents in the presence of a soluble dispersion-stabilizing resin containing Si and/or F-containing substituents.

IC ICM G03G005-147

ICS G03G013-28

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35

IT 150752-98-0P 150752-99-1P 150753-00-7P 150753-06-3P
 150753-07-4P 150753-08-5P 150753-09-6P 150753-11-0P
 150753-12-1P 150753-13-2P 150753-14-3P 150753-15-4P 150753-16-5P
 150753-17-6P 150753-18-7P 150753-19-8P 150753-20-1P 150753-21-2P
 150753-33-6P 150753-38-1P 150753-39-2P 150753-41-6P 150753-42-7P
 150753-43-8P 150753-45-0P 150771-43-0P 151565-03-6P 151565-04-7P
 151565-05-8P 151565-06-9P 151565-07-0P 151565-08-1P 151575-39-2P
 151677-25-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and use of, latex, electrophotog. lithog. plate from)

IT 150753-07-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and use of, latex, electrophotog. lithog. plate from)

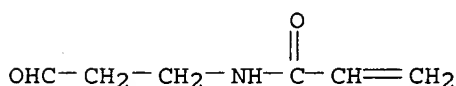
RN 150753-07-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with hexyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate, N-(3-oxopropyl)-2-propenamide and 3-(pentamethyldisiloxanyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 40660-67-1

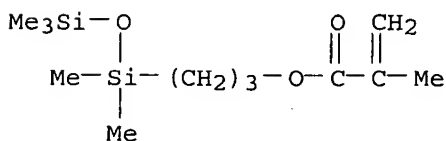
CMF C6 H9 N O2



CM 2

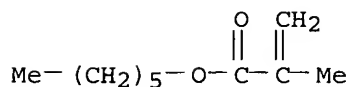
CRN 18151-85-4

CMF C12 H26 O3 Si2



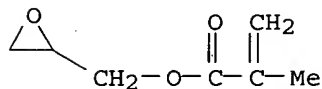
CM 3

CRN 142-09-6
CMF C10 H18 O2



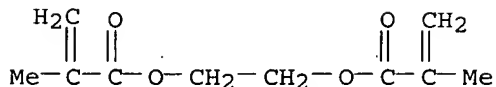
CM 4

CRN 106-91-2
CMF C7 H10 O3



CM 5

CRN 97-90-5
CMF C10 H14 O4



L71 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1993:637925 HCAPLUS

DOCUMENT NUMBER: 119:237925

TITLE: Manufacture of electrophotographic master plate for lithographic platemaking

INVENTOR(S): Kato, Eiichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 05002275 | A2 | 19930108 | JP 1991-154725 | 19910626 |
| PRIORITY APPLN. INFO.: | | | JP 1991-154725 | 19910626 |

AB The manufacture comprises forming a toner image on an electrophotog. plate described below by imagewise exposing, treating the photoconductive layer at the nonimage regions with a lipophobic desensitizing solution containing a hydrophilic compound of Pearson's nucleophilic constant ≥ 5.5 . In the

above electrophotog. plate having an image-receiving layer on its elec. conductive support, the image-receiving layer contains nonaq. solvent-dispersed resin particles of particle size equal to or smaller than that of the largest ZnO particles. The nonaq. solvent-dispersed resin particles are obtained by dispersion polymerizing a monofunctional monomer (A containing formyl and/or a functional group CH(OA1)(OA2) [R1,2 = hydrocarbon group; R1 and R2 may form a ring], with a monofunctional monomer (B) containing Si and/or F-containing substituents in the presence of a soluble dispersion-stabilizing resin containing Si and/or F-containing substituents.

IC ICM G03G005-05

ICS B41N001-14; G03G005-06; G03G013-28

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35

IT 150752-98-0P 150752-99-1P 150753-00-7P 150753-06-3P
 150753-07-4P 150753-08-5P 150753-09-6P 150753-11-0P
 150753-12-1P 150753-13-2P 150753-14-3P 150753-15-4P 150753-16-5P
 150753-17-6P 150753-18-7P 150753-19-8P 150753-20-1P 150753-21-2P
 150753-33-6P 150753-38-1P 150753-39-2P 150753-40-5P 150753-41-6P
 150753-42-7P 150753-43-8P 150753-44-9P 150753-45-0P 150771-43-0P
 150771-47-4P 150771-48-5P 150771-49-6P 150771-50-9P 150771-51-0P
 150771-52-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and use of, latex, electrophotog. lithog. plate from)

IT 150753-07-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and use of, latex, electrophotog. lithog. plate from)

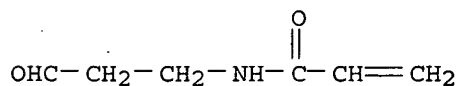
RN 150753-07-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with hexyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate, N-(3-oxopropyl)-2-propenamide and 3-(pentamethyldisiloxanyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 40660-67-1

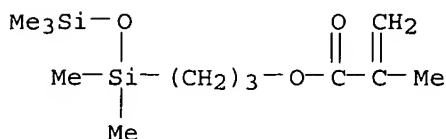
CMF C6 H9 N O2



CM 2

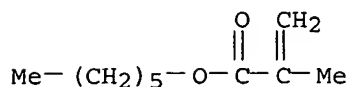
CRN 18151-85-4

CMF C12 H26 O3 Si2



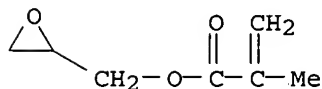
CM 3

CRN 142-09-6
CMF C10 H18 O2



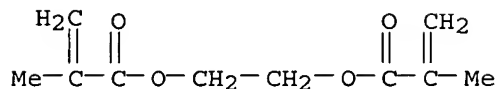
CM 4

CRN 106-91-2
CMF C7 H10 O3



CM 5

CRN 97-90-5
CMF C10 H14 O4



L71 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1993:570524 HCAPLUS

DOCUMENT NUMBER: 119:170524

TITLE: Manufacture of lithographic master via electrophotography

INVENTOR(S): Kato, Eiichi; Kasai, Kyosuke

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 71 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

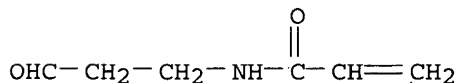
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 04333054 | A2 | 19921120 | JP 1991-131622 | 19910508 |
| PRIORITY APPLN. INFO.: | | | JP 1991-131622 | 19910508 |

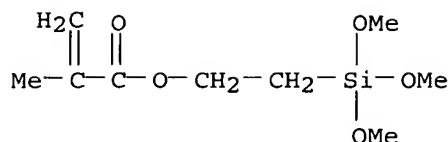
AB The manufacture comprises forming a toner image on an electrophotog. plate described below by imagewise exposing, treating the photoconductive layer at the nonimage regions with a lipophobic desensitizing solution containing a hydrophilic compound having Pearson's nucleophilic constant ≥ 5.5 . In

the above electrophotog. plate obtained by coating at least an elec. conductive support with ≥ 1 photoconductive layers containing photoconductive ZnO particles, spectral sensitizing dyes and a binder resin, the photoconductive layer contains a binder resin (A) and nonaq. solvent-dispersed resin particles (L) of average particle size equal to or smaller than that of the largest ZnO particles. The above resin (A) (average mol. weight 1×10^3 - 2×10^4) contains polymer component CHa1Ca2CO2R (a1,2 = H, halo, CN, hydrocarbon group; R = hydrocarbon group) $\geq 30\%$, and ≥ 1 polar groups selected from PO3H2, SO3H, CO2H, P(O)(OH)R1 [R1 = hydrocarbon group, OR2 (R2 = hydrocarbon group)] and cyclic acid anhydride-containing group, are bonded to 1 end of the polymer main chain. The nonaq. solvent-dispersed resin particles are obtained by dispersion polymerizing a monofunctional monomer (C) containing formyl and/or a functional group CH(OA1)(OA2) [A1,2 = hydrocarbon group; A1 and A2 may form a ring], in the presence of a soluble dispersion-stabilizing resin containing structure-repeating units containing Si and/or F-containing substituents.

IC ICM G03G005-06
ICS G03G005-05; G03G005-08; G03G013-28
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 149698-35-0P 149698-33-9P 149698-34-0P 149698-35-1P 149698-36-2P
149698-37-3P 149698-38-4P 149698-39-5P 149698-40-8P 149698-42-0P
149698-43-1P 149698-46-4P 149698-47-5P 149698-48-6P 149698-49-7P
149698-50-0P 149698-51-1P 149698-52-2P 149698-53-3P
149698-54-4P 149698-55-5P 149698-56-6P 149698-57-7P 149698-58-8P
149698-59-9P 149698-60-2P 149698-62-4P 149698-63-5P 149729-05-5P
149729-06-6P 149729-07-7P 149729-28-2P 149729-30-6P 149729-31-7P
149729-32-8P 149729-33-9P 149765-50-4P 149934-66-7P 149962-75-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, latex, electrophotog. plate from)
IT 149698-52-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, latex, electrophotog. plate from)
RN 149698-52-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
N-(3-oxopropyl)-2-propenamide and 2-(trimethoxysilyl)ethyl
2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)
CM 1
CRN 40660-67-1
CMF C6 H9 N O2



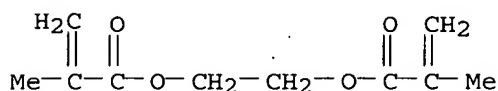
CM 2
CRN 15289-97-1
CMF C9 H18 O5 Si



CM 3

CRN 97-90-5

CMF C10 H14 O4



L71 ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1993:503120 HCAPLUS

DOCUMENT NUMBER: 119:103120

TITLE: Properties controlling the diffusion and release of water-soluble solutes from poly(ethylene oxide) hydrogels. 1. Polymer composition

AUTHOR(S): McNeill, Marion E.; Graham, Neil B.

CORPORATE SOURCE: Dep. Pure Appl. Chem., Univ. Strathclyde, Glasgow, G1 1XL, UK

SOURCE: Journal of Biomaterials Science, Polymer Edition (1993), 4(3), 305-22

CODEN: JBSEEA; ISSN: 0920-5063

DOCUMENT TYPE: Journal

LANGUAGE: English

AB This study examines the state of water-association with poly(ethylene oxide), as evidenced by diffusivity, in a series of crosslinked polyurethanes made from poly(ethylene glycols) of a range of mol. wts. As a subsidiary underpinning exercise the correlation of diffusivity with water content at relatively high levels of swelling (>45%) using a variety of semi-empirical equations was analyzed. Three water-soluble compds. with similar mol. wts. and which exhibit minimal interaction with the polymer, as shown by their partition coeffs., were chosen for this part of the research program. These were proxyphylline, morphine-HCl and caffeine. The best statistical correlations of the data were obtained for plots of: (a) diffusivity against weight percent water; and (b) log diffusivity against the reciprocal of the weight percent of water in the hydrogels. Proxyphylline results for the high levels of swelling compns. were augmented with data from lower swelling compns. and a clear break in the slope of diffusivity against percentage of water in the swollen hydrogel was obtained. This indicated a change in the nature of the diffusion at this point. The probability of this transition point corresponding to a change for diffusion through water bound as trihydrate to diffusion in free water is discussed.

CC 63-5 (Pharmaceuticals)

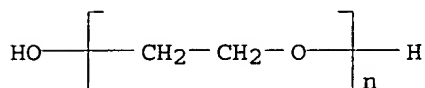
Section cross-reference(s): 36

IT 85699-32-7 149295-85-2

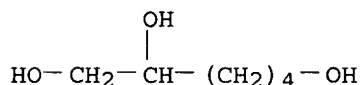
RL: BIOL (Biological study)

(crosslinked, hydrogels, water-soluble drugs diffusion and release from, polymer composition control of)

IT 149295-85-2
 RL: BIOL (Biological study)
 (crosslinked, hydrogels, water-soluble drugs diffusion and release from,
 polymer composition control of)
 RN 149295-85-2 HCAPLUS
 CN 1,2,6-Hexanetriol, polymer with α -hydro- ω -hydroxypoly(oxy-1,2-
 ethanediyl) (9CI) (CA INDEX NAME)
 CM 1
 CRN 25322-68-3
 CMF (C2 H4 O)_n H2 O
 CCI PMS



CM 2
 CRN 106-69-4
 CMF C6 H14 O3



L71 ANSWER 24 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1989:125277 HCAPLUS
 DOCUMENT NUMBER: 110:125277
 TITLE: Silver halide photographic materials with polyester
 substrates having improved layer adhesion
 INVENTOR(S): Tachibana, Noriki; Nakagawa, Satoshi
 PATENT ASSIGNEE(S): Konica Co., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 63218951 | A2 | 19880912 | JP 1987-52302 | 19870306 |
| PRIORITY APPLN. INFO.: | | | JP 1987-52302 | 19870306 |

AB A polyester film base of a photog. material is undercoated with polymers reactive with gelatin. Thus, a corona-discharged PET film was coated with a composition containing 4.0 g copolymer obtained by polymerization of Bu acrylate 30,
 CH₂:CHCHNHCH₂NHCO(CH₂)₂SO₂CH₂CH₂Cl 40, and hydroxyethyl acrylate 30 parts followed by treatment with Et₃N, 20 mg each of 2 kinds of surfactants, 30 mg hexamethylenebis ethyleneurea, and 2.0 g gelatin, dried, and then coated with a solution containing 1 g gelatin and 20 mg saponin. A

photosensitive printing plate was obtained by coating a Ag halide emulsion layer and a protective layer on these undercoat layers, and normally processed. A test of adhesion strength by lifting a squarely cut surface of the film with adhesive tape showed the effectiveness of the invention undercoat.

IC ICM G03C001-80

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 85899-15-6P 119485-23-3P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and polymerization of, undercoatings for polyester photog.

film bases

from)

IT 119485-23-3P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and polymerization of, undercoatings for polyester photog.

film bases

from)

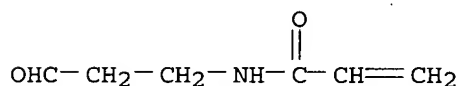
RN 119485-23-3 HCAPLUS

CN 2-Propenoic acid, ethyl ester, polymer with 2-hydroxyethyl 2-propenoate and N-(3-oxopropyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 40660-67-1

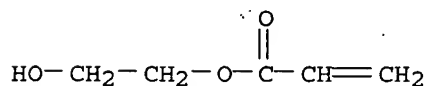
CMF C6 H9 N O2



CM 2

CRN 818-61-1

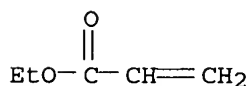
CMF C5 H8 O3



CM 3

CRN 140-88-5

CMF C5 H8 O2



L71 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1988:464175 HCAPLUS
DOCUMENT NUMBER: 109:64175
TITLE: Silver halide color photographic material containing
hardened top organopolysiloxane layer
INVENTOR(S): Tachibana, Noriki; Ueda, Eiichi; Kagawa, Nobuaki; Ota,
Hideo; Oi, Ichiro
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| JP 62269139 | A2 | 19871121 | JP 1986-113287 | 19860516 |
| JP 06019519 | B4 | 19940316 | | |

PRIORITY APPLN. INFO.: JP 1986-113287 19860516

AB A Ag halide color photog. material contains a hydrophilic colloid top layer containing an organopolysiloxane and hardened with an amine hardener. Even if the hydrophilic colloid layer contains a large amount of the organopolysiloxane, the transfer of the organopolysiloxane does not occur during the manufacture of the photog. material. Also, the properties of the photog. material are not affected by the addition of the organopolysiloxane.

IC ICM G03C001-76
ICS G03C001-30

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 81869-03-6 85899-16-7 95528-55-5 95528-57-7 115401-85-9
RL: USES (Uses)
(hardener, for silver halide color photog. material)

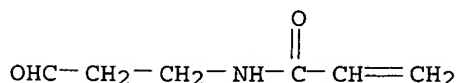
IT 115401-85-9
RL: USES (Uses)
(hardener, for silver halide color photog. material)

RN 115401-85-9 HCAPLUS

CN 2-Propenamide, N-(3-oxopropyl)-, polymer with 2-propenamide (9CI) (CA INDEX NAME)

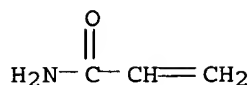
CM 1

CRN 40660-67-1
CMF C6 H9 N O2



CM 2

CRN 79-06-1
CMF C3 H5 N O



L71 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1985:562185 HCAPLUS

DOCUMENT NUMBER: 103:162185

TITLE: Brominated, chlorinated and hydroxylated surfactants derived from oleyl chain: preparation and surface properties

AUTHOR(S): Garti, N.; Aserin, A.

CORPORATE SOURCE: Sch. Appl. Sci. Technol., Hebrew Univ. Jerusalem, Jerusalem, 91904, Israel

SOURCE: Journal of Dispersion Science and Technology (1985), 6(2), 175-91

CODEN: JDTEDS; ISSN: 0193-2691

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Bromination, chlorination and hydroxylation of the double bond in polyethylene glycol oleates and oleyl ethers and polyglycerol oleates were carried out. The products had higher sp. gr. and therefore can be used as weighting agents. Surface properties and the ability to emulsify water and oils did not change significantly. Phys. (sp. gr., viscosity, and refractive index) and surface properties (such as reduction of surface tension of water, critical micelle concentration (CMC), area per mol. at the liquid/air interface, efficiency and effectiveness were measured and compared to the corresponding unsatd. surfactants. The incorporated dibromo, dichloro, or dihydroxy groups diminish some of the surface properties of the surfactant, e.g. higher surface tension, higher CMC value, higher area per mol., and lower efficiency and effectiveness in comparison to the related unsatd. surfactants. This study confirmed early findings suggesting that oleyl ethoxylated surfactants behaved abnormally when compared to straight chain ethoxylated alcs. or acids or polyglycerol esters and that any derivatization in the hydrophobic chain would significantly alter surface properties.

CC 46-3 (Surface Active Agents and Detergents)

IT 9007-48-1DP, brominated 33940-98-6DP, brominated 90168-40-4P

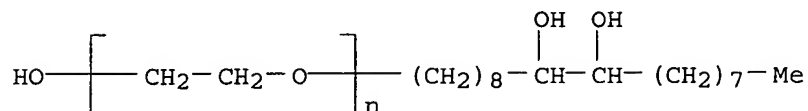
98815-20-4P 98815-21-5P 98827-72-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and surface-active properties of)

IT 98815-21-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and surface-active properties of)

RN 98815-21-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -(9,10-dihydroxyoctadecyl)- ω -hydroxy- (9CI) (CA INDEX NAME)

L71 ANSWER 27 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1978:548055 HCAPLUS

DOCUMENT NUMBER: 89:148055
 TITLE: Modification of proteins
 INVENTOR(S): Ogata, Nobuo; Ogawa, Hideaki; Watanabe, Kiyoshi
 PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan
 SOURCE: Jpn. Tokkyo Koho, 5 pp.
 CODEN: JAXXAD
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| JP 53024227 | B4 | 19780719 | JP 1974-85210 | 19740726 |
| PRIORITY APPLN. INFO.: | | | JP 1974-85210 | A 19740726 |

AB Proteins (10-40%) reacted with 60-90% NCO-terminated aliphatic polyurethanes to prepare fibrous materials. Thus, 4.75 g 1,4-butanediol was dissolved in 50 mL C₆H₅Cl at 90°, mixed with 80% of a solution of 10.39 g hexamethylene diisocyanate (I) in 20 mL C₆H₅Cl, heated at reflux for 10 min, mixed with the remaining I solution, and heated at reflux for 1.5 h to prepare a polymer solution, which was mixed (50 mL) with 75 mL Me₂SO containing 2.83 g yeast protein and heated at 100° for 3.75 h to prepare 100% white fibrous material.

IC C08H001-00
 CC 39-2 (Textiles)
 IT 25035-42-1D, reaction product with yeast **proteins**
 25748-74-7D, reaction product with yeast **proteins**
 RL: USES (Uses)
 (fibrous)

IT 25035-42-1D, reaction product with yeast **proteins**
 RL: USES (Uses)
 (fibrous)

RN 25035-42-1 HCAPLUS
 CN Poly(oxy-1,4-butanediylloxycarbonylimino-1,6-hexanediyliminocarbonyl) (9CI)
 (CA INDEX NAME)

